

Application No. 10/542,898
Paper Dated: September 5, 2007
Reply to Office Communication of March 6, 2007
Attorney Docket No. 0702-052257

IN THE DRAWINGS

Please replace the originally-filed sheets of drawings containing Figs. 5-7 with the Replacement Sheets of Figs. 5-7. These replacement figures identify the cylinder 17 as described in the paragraph added in the foregoing "Amendments to the Specification" section above. No new matter has been added.

Attachment: 3 Annotated Sheets

Attachment: 3 Replacement Sheets

REMARKS

The Office Action, dated March 6, 2007, has been reviewed and the Examiner's comments carefully considered. The present Amendment modifies Figs. 5-7 and the specification, all in accordance with the originally-filed application. No new matter has been added. Claims 20-35 are pending in this application, and claim 20 is in independent form.

Initially, the Examiner has objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(4), as the reference character "5" has been used to designate both "outer housing segment" and "dividing device". In addition, the Examiner has objected to the disclosure, indicating that "outer housing segment 6" on page 5, line 27 should be modified to "outer segment 5". The foregoing amendments to the specification have been made in order to overcome the Examiner's objection to the drawings and disclosure. Accordingly, withdrawal of these objections is respectfully requested.

The Examiner has also objected to the drawings under 37 C.F.R. § 1.83(a) as not showing every feature of the invention specified in the claims. In particular, the Examiner notes that the "cylinder" recited in claims 28-30 is not present in the drawings. Applicant respectfully submits that the "cylinder" was and is illustrated in the drawings, but was not specifically referred to by a reference character. Therefore, reference character "17" has now been used to refer to the cylinder, and the specification has been appropriately amended to support this drawing modification. Entry of the amendments to the drawings, i.e., Figs. 5-7, and the specification is respectfully requested. These modifications address and overcome the Examiner's objection to the drawings in this regard.

Claim 20 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of U.S. Patent No. 7,037,093. In addition, claims 20-35 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,906,297 to Cole. In view of the following remarks, Applicant respectfully requests reconsideration of these rejections.

Summary of the Invention

The present invention is directed to a dividing device. The dividing device includes an outer housing with an inlet and at least two outlets. In addition, the dividing device includes at least two pump chambers placed adjacently of each other in the outer housing, and each pump chamber includes a pump chamber infeed connected to the inlet, as well as a pump chamber discharge connected to the outlet. At least two vane-type rotors are included, one in each pump chamber, and with a rotation axis in line. Each vane-type rotor includes a hub with continuous vanes that are slidable through the hub along the longitudinal axis and substantially perpendicularly to the axis of the hub. The outer housing is divided into outer housing segments.

The Cited Prior Art

The Cole patent is directed to a multi-outlet depositor, and the depositor includes a hub/chamber assembly 32 with a chamber 42 and a hub 44. The hub 44 is positioned within a hole in the chamber 42, and includes a pair of vanes 48, 49 that are capable of sliding along a longitudinal axis thereof within the hub 44. The vanes 48, 49 are shaped and interlocked so as not to slide entirely out of the hub 44 as the hub 44 rotates. In

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addition, the hub 44 includes multiple holes 55a-55d that are disposed transversely through the hub 44, and each of the holes 55a-55d aligns with the holes in the hubs of the outer hub/chamber assemblies 33-35. In this manner, a set of bolts or other coupling means can be placed into the holes 55a-55d and into the holes of the other hub/chamber assemblies 33-35 to cause all the hubs to rotate in unison.

Claim 20 is Patentably Distinct from Claim 12 of the '093 Patent

As set forth above, the Examiner has rejected claim 20 as being unpatentable over claim 12 of the '093 patent on the basis of "double patenting". In particular, the Examiner believes that although the conflicting claims are not identical, they are not patentably distinct from each other because the application claims are merely broader in scope than those of the patent. Applicant respectfully disagrees with this assertion.

Again, claim 20 is directed to a dividing device having an outer housing, pump chambers and vane-type rotors. Further, independent claim 20 of the present application specifically indicates that the outer housing is divided into outer housing segments. This represents a limitation that is not present in claim 12 of the '093 patent. Specifically, and in the arrangement of the '093 patent, only the interior of the dividing device is segmented. This arrangement is illustrated in Fig. 2 of the '093 patent and further described in column 3, lines 4-6: "FIG. 2 shows a segment 4 of the dividing device 1 as can be seen in FIG. 1. Each segment, is provided with a housing 5 in which a vane-type rotor 6."

Accordingly, claim 12 of the '093 patent does not teach or suggest that anything other than the housing 5 (which corresponds with the pump chamber 11 of the present application) and the vane-type rotor 6 (identified by reference character "12" in the

present application) is segmented. In particular, the '093 patent does not teach or suggest segmenting either the inner housing or the outer housing of the dividing device. On this basis, Applicant asserts that claim 20 of the present application is distinguishable from claim 12 of the '093 patent, as claim 20 is not merely broader in scope than claim 12. Further, Applicant submits that claim 20 is not anticipated by or rendered obvious over claim 12 of the '093 patent. Withdrawal of the "double patenting" rejection of claim 20 is respectfully requested.

The Cole Patent Does Not Teach or Suggest the Dividing Device of Claim 20

As discussed above, the Cole patent is directed to a multi-outlet depositor that includes sliding vanes. However, and as with the '093 patent, the Cole patent does not teach or suggest that the outer housing of the dividing device is divided into outer housing segments, as specifically set forth in claim 20. As best illustrated in Figs. 1 and 2 of the Cole patent, and as described in column 3, lines 35-58 of the corresponding description, it is evident that the outer housing of the Cole patent is a single piece. Further, in column 3, lines 37-40 of the Cole patent, it is stated that: "The multi-outlet depositor 16 includes a non-moving stainless steel cylindrical section 30 having a pair of end plates 31a, 31b fixedly attached thereto." (Emphasis added). This cylindrical section 30 and the end plates 31a, 31b together may be likened to the outer housing described in claim 20 of the present application. Clearly, the outer housing of the Cole patent is not divided into segments. Instead, in the Cole patent, such segmenting is limited to the mechanism inside the outer housing. "The cylindrical section 30 contains four disc-shaped hubs/chamber assemblies 32-35." Column 3, lines 40-41 of the Cole patent (emphasis added).

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Applicant respectfully draws the Examiner's attention to the "Description of the Related Art" portion of the present application, specifically at page 1, line 15 – page 2, line 10. Applicant is well aware of the teachings of the Cole patent, having discussed its International patent application counterpart (WO A2 98/22206) in the referenced portion of the application. Again, and as recited herein, the outer housing in the Cole patent is in one piece and cannot be modified. This represents a drawback in that the number of flow portions from this prior art dividing device cannot be increased, as explained at page 1, line 22 – page 2, line 5 of the present application.

Summary

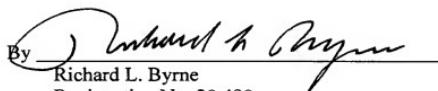
The present invention is directed to a dividing device that includes an outer housing that is divided into outer housing segments. None of the Cole patent, the '093 patent or any of the prior art of record teaches or suggests a dividing device having an outer housing divided into outer housing segments, as specifically set forth in independent claim 20 of the present application. For these reasons, claim 20 is not anticipated by or rendered obvious over the '093 patent, the Cole patent or any of the prior art of record, whether used alone or in combination. There is no hint or suggestion in any of the references to combine these references in a manner that would render the invention, as claimed, obvious. Accordingly, reconsideration of the rejection of independent claim 20 is respectfully requested.

Claims 21-35 depend either directly or indirectly from and add further limitations to independent claim 20 and are believed to be allowable for the reasons discussed hereinabove in connection with independent claim 20. Therefore, for these reasons, reconsideration of the rejections of claims 21-35 is respectfully requested.

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For all the foregoing reasons, Applicant believes that claims 21-35 are patentable over the cited prior art and in condition for allowance. Reconsideration of the rejections and allowance of all pending claims 20-35 are respectfully requested.

Respectfully resubmitted,
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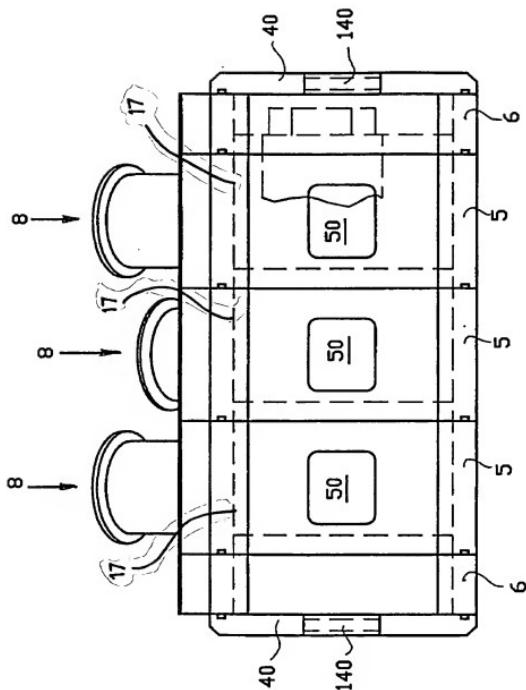


FIG. 5

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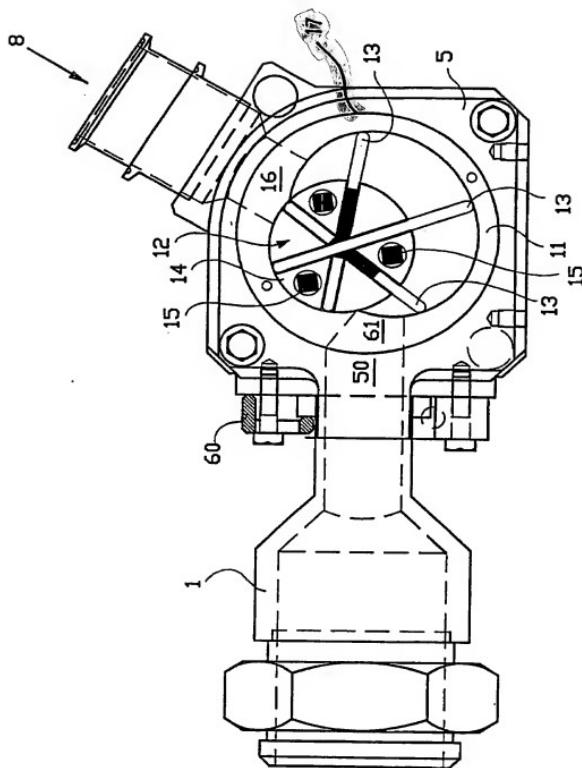
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FIG. 6

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FIG. 7

